



Wargaming Workshop

- **Participants submitted information that told the uses they made of wargaming (see next pages)**
- **Two different sessions were held to discuss the primary uses identified with the following break-outs**
 - **Wargaming for Training, Education, Exercise Driver Uses**
 - **Wargaming for Analysis and Decision Support**
- **These sessions served the purpose of educating a broader community on JWARS development and identifying some previously unconsidered use issues in the areas of JWARS and wargaming.**



Wargaming for Analysis and Decision Support

- **Participants in this group looked at four points**
 - **Questions that should be asked as we consider the use of M&S (and inparticularly JWARS) for Wargaming Analysis and Decision Support**
 - **Attributes we would like to see in modeling used for these purposes**
 - **Tasks that we hope a model used for this type of wargaming would handle.**
 - **Opportunities that should be explored to enhance this area.**



Attributes and Tasks

- **Several ideas about what the analytic and decision making requirements should encompass (beyond the current statements in the JWARS requirements document) were discussed. Here are some of the ideas - other additional comments are solicited.**
 - **Bookkeeping ability - Some participants had observed the current Dynamic Commitment Wargaming activities led by J-8 and concluded that it was important for a wargame to be able to report on the use of resources at any given time. Although this is an attribute of many current models, it seemed that the ideas were more broadly linked to a ongoing analytic process. There are a number of tools being developed by the Services to support their assessment of the current game play. It would be useful to examine these tools and ask whether it makes sense to embed them into the JWARS structure. In a sense, someone said, that this is like putting in the buildings on a campus and then looking to see where the students are walking before adding all of the sidewalks.**
 - **Built-in decision making - This is a difficult concept that the JWARS presentator briefly discussed. He described how for each requirement there is a very detailed scoping effort that involves user group members, technical experts, and a level of basic research. We agreed that this is an area where a lot of definitional work and research will be required.**
 - **Three other concepts were discussed that are currently part of the JWARS plan: Jointness, Open Architecture, VV&A.**



Questions To Discuss

- **What is a Wargame?** [Although the answer to this question may seem obvious to those with specific roles or as some have pointed out by looking at Joint Pub 1.02 the survey of workshop participants showed that there was reason to explore this question from the viewpoint of understanding the diversity of the community and the resulting affect on the perception of how JWARS might meet requirements for wargaming.]
- **What is the implication of HLA compliance on M&S and tools in support of wargaming?** [Since this group was working on analysis and decision support, the advantages offered by HLA compliance were not as clear as they might be for wargaming that might potentially use a linkage of JSIMS for large scale training with JWARS used to set the stage and fast forward. Other agencies may have models and tools that need to be reviewed for waivers, but no candidates appeared in our discussions.]
- **What wargaming support cannot be provided by JWARS and JSIMS?** [It was noted that Political-Military gaming may be supplemented but probably can not be supplanted by these models. Many of the decision support efforts and wargames such as Dynamic Commitment are based on allocation of forces. A carefully scoping of the requirements will be needed if support to this type of game is envisioned.]
- **How do you allow for innovation while reducing proliferation of models?** [This was a concern of the group and the Analysis Council may wish to consider choosing a task group to explore this issue.]



Tasks and More Attributes

- To support this area, participants in the Analysis and Decision Support group looked the following additional tasks
 - Real time decision support and how can a model in support of this area be enduring: Not too much discussion of this area, but one idea was that architecturally, a model must be relatively easy to modify and the structural features must be adaptable. One of the planning characteristics of JWARS is a requirement to be able to model new organizations and organizational structures. Real time decision support also requires high rate of information turn-around.
 - Plug and play: The implications of being able to use a model supported wargame in real time with information instantly available is that the supporting model must be flexible and adaptable, users must be prepared for use. Some of the realities that need exploration are that the level of fidelity may be impacted. Trade-offs need explored.



Opportunities

- **Participants in this group suggested that the following opportunities be considered.**
 - **Use of genetic algorithms**
 - **Leveraging of technology in general be closely monitored. A plan to take advantage of anticipated technology advances should be considered as part of the overall plan for a model like JWARS.**
 - **Leverage standardized object oriented technology through the large Industry Object Management Group.**